

ABSTRACT

A sensor method and system are disclosed. A fluid flow sensor can
5 be provided, which measures the thermal conductivity of a fluid. The sensor
itself can be configured to comprise one or more sensing element associated
with a sensor substrate. A heater can be associated with said sensor
wherein said heater provides heat to said fluid. A film component can also
be provided that isolates said fluid from said heater and said sensor,
10 such that said film component conducts heat in a direction from said heater
to said sensor, thereby forming a thermal coupling between said sensor, said
heater and said fluid, which permits said sensor to determine a composition
of said fluid by measuring thermal conductivity thereof without undesired
losses of heat in other directions. The film component can be configured on
15 or in the shape of a tubing or a flow channel.